IN THE CLAIMS

1. (Original) A method of emulating a network environment comprising the steps of:

receiving, with a test system including a network processor programmed to function as a network emulator, an input packet stream; and

providing, with said test system including a network processor, an output packet stream wherein said output packet stream comprises a modification of said input packet stream.

2. (Original) The method of claim 1 wherein said step of providing comprises providing an output packet stream having at least one characteristic, said at least one characteristic selected from the group consisting of delay, jitter, packet loss, reordered packets and duplicate packets.

3. (Original) The method of claim 1 wherein said step of providing comprises providing an output packet stream having characteristics of a predefined output packet stream.

4. (Original) The method of claim 1 wherein said predefined output packet stream is representative of a user's environment.

5. (Original) The method of claim 1 wherein said predefined output packet stream comprises a worst case test scenario.

6. (Original) The method of claim 1 wherein said step of receiving comprises receiving an input packet stream selected from the group consisting of VOIP and MOP.

7. (Original) The method of claim 1 wherein said step of providing comprises providing an output packet stream selected from the group consisting of VOIP and MOP.

8. (Original) The method of claim 2 wherein said at least one characteristic changes over time.

9. (Original) The method of claim 1 wherein said step of providing includes substituting a payload of a packet with an audio clip.

10. (Original) The method of claim 9 wherein said audio clip is selected from the group consisting of a silence clip, a tone clip, a prerecorded audio clip, and a PSQM clip.

11. (Original) The method of claim 1 wherein said step of receiving comprises receiving on an interface selected from the group consisting of 10Mbit Ethernet, 100 Mbit Ethernet, 1 Gigabit Ethernet, 1.0624 Gbit Fibrechannel, OC-3, OC-3c, OC-12, OC-12c, T-1/E-1 and T-3/E-3.

12. (Original) The method of claim 1 wherein said step of providing comprises providing on an interface selected from the group consisting of 10Mbit Ethernet, 100 Mbit Ethernet, 1 Gigabit Ethernet, 1.0624 Gbit Fibrechannel, OC-3, OC-3c, OC-12, OC-12c, T-1/E-1 and T-3/E-3.

13. (Original) A method comprising the steps of:

receiving a network traffic profile;

providing said network traffic profile to a network emulator; and

emulating, with said network emulator, the effect the network would have on a packet according to said network traffic profile.

14. (Original) The method of claim 13 wherein said network traffic profile includes at least one characteristic, said characteristic selected from the group consisting of packet delay, packet jitter, packet loss, reordered packets, network congestion effects, and duplicate packets.

15. (Original) The method of claim 13 wherein when the network traffic profile is not activated, the behavior defaults to that of an ordinary wire.

16. (Original) The method of claim 13 further comprising an initial step of recording a network traffic profile.

17. (Original) The method of claim 13 wherein said network traffic profile is representative of a user's environment.

18. (Original) The method of claim 13 wherein said network traffic profile comprises a worst-case test scenario.

19. (Original) The method of claim 13 wherein said step of network traffic profile comprises a VOIP network traffic profile.

20. (Original) The method of claim 13 wherein all packets see the same profile.

21. (Original) The method of claim 13 wherein said network traffic profile starts at a beginning of an audio stream.

22. (Original) The method of claim 13 wherein said network traffic profile is created by a user.

23. (Original) The method of claim 13 wherein said network traffic profile is created using statistical parameters.

24. (Original) The method of claim 13 wherein said network traffic profile is created by concatenating together segments of other profiles.

25. (Original) A method of adding network behavior to packets traveling between two devices comprising the steps of:

providing a network processor, said network processor including an interface coupled to a communications network;

programming said network processor to output packets at a specific time; and

outputting, by said network processor, packets at a specific time onto said communications network.

26. (Currently amended) The method of claim 25 wherein said step of outputting comprises outputting said packets at a specific time in order to produce a characteristic of said packets onto said communications network, wherein said characteristic is selected from the group consisting of delay, jitter, packet loss, packet reordering and packet duplication.

27. (Original) The method of claim 26 further comprising the step of providing a first gateway, said first gateway providing a first packet stream onto said communications network, and wherein said first packet stream is combined with the packets output by said network processor to produce a modified packet stream.

28. (Original) The method of claim 27 further comprising the step of receiving said modified packet stream by a second gateway in communication with said communications network.

29. (Original) A test system comprising:

a network processor programmed to function as a network emulator;

an input port in communication with said network processor, said input port capable of receiving an input packet stream; and

an output port in communication with said network processor, wherein said network processor is capable of providing an output packet stream on said output port, said output packet stream comprising a modification of said input packet stream.

30. (Original) The test system of claim 29 wherein said output packet stream has at least one characteristic, said at least one characteristic selected from the group consisting of delay, jitter, packet loss, reordered packets and duplicate packets.

31. (Original) The test system of claim 30 wherein said output packet stream has characteristics of a predefined output packet stream.

32. (Original) The test system of claim 30 wherein said output packet stream is representative of a user's environment.

33. (Original) The test system of claim 30 wherein said output packet stream comprises a worst case test scenario.

34. (Original) The test system of claim 30 wherein said input packet stream is selected from the group consisting of VOIP and MOP.

35. (Original) The test system of claim 30 wherein said output packet stream is selected from the group consisting of VOIP and MOP.

36. (Original) The test system of claim 31 wherein said at least one characteristic changes over time.

37. (Original) The test system of claim 30 wherein a payload of a packet within said output stream has been substituted with an audio clip.

38. (Original) The test system of claim 38 wherein said audio clip is selected from the group consisting of a silence clip, a tone clip, a prerecorded audio clip, and a PSQM clip.

39. (Original) The test system of claim 30 wherein said input port is selected from the group consisting of 10Mbit Ethernet, 100 Mbit Ethernet, 1 Gigabit Ethernet, 1.0624 Gbit Fibrechannel, OC-3, OC-3c, OC-12, OC-12c, T-1/E-1 and T-3/E-3.

40. (Original) The test system of claim 30 wherein said output port is selected from the group consisting of 10Mbit Ethernet, 100 Mbit Ethernet, 1 Gigabit Ethernet, 1.0624 Gbit Fibrechannel, OC-3, OC-3c, OC-12, OC-12c, T-1/E-1 and T-3/E-3.

41. (Original) A test system comprising:

a network processor programmed to function as a network emulator, said test system capable of receiving a network profile; and

an output port in communication with said network processor, wherein said network processor is capable of providing an output packet stream in accordance with said network profile.

42. (Original) The test system of claim 41 wherein said network traffic profile includes at least one characteristic, said characteristic selected from the group consisting of packet delay, packet jitter, packet loss, dropped packets, reordered packets and duplicate packets.

43. (Original) The test system of claim 42 wherein said test system is capable of recording a network traffic profile.

44. (Original) The test system of claim 42 wherein said network traffic profile is representative of a user's environment.

45. (Original) The test system of claim 42 wherein said network traffic profile comprises a worst-case test scenario.

46. (Original) The test system of claim 42 wherein said step of network traffic profile comprises a VOIP network traffic profile.

47. (Original) The test system of claim 42 wherein said network traffic profile starts at a beginning of an audio stream.

48. (Original) The test system of claim 42 wherein said network traffic profile is created by a user.

49. (Original) The test system of claim 42 wherein said network traffic profile is created using statistical parameters.

50. (Original) The test system of claim 42 wherein said network traffic profile is created by concatenating together segments of other profiles.

51. (Original) An apparatus comprising:

a network processor;

storage associated with said network processor;

an interface coupling an output of said network processor to a communications network;

instructions and data within said storage, said instructions and data directing said network processor to output packets at a specific time.

52. (Original) The apparatus of claim 51 wherein said data and instructions direct said network processor to output packets at a specific time to produce a characteristic of said packets onto said communications network.

53. (Original) The apparatus of claim 52 wherein said characteristic is selected from the group consisting of delay, jitter, packet reordering, and packet duplication.

54. (Original) The apparatus of claim 52 further comprising a first gateway in communication with said communications network, said first gateway providing a first packet stream onto said communications network, and wherein said first packet stream is combined with said packets provided by said network processor to provide a modified packet stream.

55. (Original) The apparatus of claim 54 further comprising a second gateway in communication with said communications network and wherein said second gateway receives said modified packet stream.

56. (Original) A computer program product comprising a computer usable medium having computer readable code thereon, including program code comprising:

instructions for causing a test system having a network processor to receive an input packet stream; and

instructions for causing said test system to provide an output packet stream, said output packet stream comprising a modification of said input packet stream.

57. (Original) The computer program product of claim 52 wherein said output packet stream has at least one characteristic selected from the group consisting of delay, jitter, packet loss, re-ordered packets, and duplicate packets.

58. (Original) The computer program product of claim 57 wherein said output packet stream has characteristics of a predefined output packet stream.

59. (Original) The computer program product of claim 58 wherein said predefined output packet stream is representative of a user's environment.

60. (Original) The computer program product of claim 59 wherein said predefined output packet stream comprises a worst-case test scenario.

61. (Original) The computer program product of claim 57 wherein said input packet stream is selected from the group consisting of VOIP and MOP.

62. (Original) The computer program product of claim 57 wherein said output packet stream is selected from the group consisting of VOIP and MOP.

63. (Original) The computer program product of claim 58 wherein said at least one characteristic changes over time.

64. (Original) The computer program product of claim 57 wherein the providing of an output packet stream includes substituting a payload of a packet with an audio clip.

65. (Original) The computer program product of claim 65 wherein said audio clip is selected from the group consisting of a silence clip, a tone clip, a prerecorded audio clip, and a PSQM clip.

66. (Original) The computer program product of claim 57 wherein the packet stream is received on an interface selected from the group consisting of 10Mbit Ethernet, 100 Mbit Ethernet, 1 Gigabit Ethernet, 1.0624 Gbit Fibrechannel, OC-3, OC-3c, OC-12, OC-12c, T-1/E-1 and T-3/E-3.

67. (Original) The computer program product of claim 57 wherein the output packet stream is provided on an interface selected from the group consisting of 10Mbit Ethernet, 100 Mbit Ethernet, 1 Gigabit Ethernet, 1.0624 Gbit Fibrechannel, OC-3, OC-3c, OC-12, OC-12c, T-1/E-1 and T-3/E-3.

68. (Original) A computer program product comprising a computer usable medium having computer readable code thereon, including program code comprising:

instructions for causing a network emulator to receive a network traffic profile; and

instructions for causing said network emulator to emulate the effect a network would have on a packet according to said network traffic profile.

69. (Original) The computer program product of claim 68 wherein said instructions for causing said network emulator to emulate the effect a network would have on a packet includes instructions for causing said network emulator to emulate the effects of a characteristic selected from the group consisting of packet delay, packet jitter, packet loss, reordered packets, network congestion effects, and duplicate packets.

70. (Original) The computer program product of claim 69 further comprising instructions for causing said network emulator to record a network traffic profile.

71. (Original) The computer program product of claim 69 wherein said instructions for causing said network processor to emulate the effect a network would have on a packet is representative of a user's environment.

72. (Original) The computer program product of claim 69 wherein said instructions for causing said network processor to emulate the effect a network would have on a packet is representative of a worst-case test scenario.

73. (Original) The computer program product of claim 69 wherein said instructions for causing said network processor to emulate the effect a network would have on a packet is representative of a VOIP environment.

74. (Original) The computer program product of claim 69 wherein said instructions for causing said network emulator to emulate the effect a network would have on a packet takes place wherein all packets see the same profile.

75. (Original) The computer program product of claim 69 wherein said instructions for causing said network emulator to emulate the effect a network would have on a packet takes place wherein said network traffic profile starts at a beginning of an audio stream

76. (Original) The computer program product of claim 69 wherein said network traffic profile is created by a user.

77. (Original) The computer program product of claim 69 wherein said network traffic profile is created using statistical parameters.

78. (Original) The computer program product of claim 69 wherein said network traffic profile is created by concatenating together segments of other profiles.

79. (Original) A computer program product comprising a computer usable medium having computer readable code thereon, including program code comprising:

instructions for causing a network processor to output packets at a specific time onto a communications network.

80. (Original) The computer program product of claim79 wherein said packets are output at a specific time in order to intentionally produce a characteristic relating to said packets onto said communications network.

81. (Original) The computer program product of claim 81 wherein said characteristic is selected from the group consisting of delay, jitter, packet loss, packet reordering and packet duplication.

82. (Original) The computer program product of claim 80 wherein a first device provides a first packet stream onto said communications network, and wherein said first packet stream is combined with the packets output by said network processor to produce a modified packet stream.

83. (Original) The computer program product of claim 82 wherein said modified packet stream is received by a second device in communication with said communications network.